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P.O. BOX 3001
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EXAMINER

CHU, KIM KWOK

ART UNIT PAPER NUMBER

2653

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

WJH

Office Action Summary	Application No. 10/056,366	Applicant(s) VERBAKEL ET AL.	
	Examiner Kim-Kwok CHU	Art Unit 2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on Remarks filed on 11/8/2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 10-42 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 10-25,27,29,31-33,35,36,40 and 42 is/are rejected.
- 7) Claim(s) 26,28,30,34,37-39 and 41 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 12 January 2004 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. 09/328,024.
 - 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

Response to Remarks

1. Applicant's Remarks filed on November 18, 2004 have been fully considered but they are not persuasive.

(a) With respect to the 35 U.S. C. § 103 (a) rejection, Applicant states that "there is not discussion within Yonemitsu et al. for placing redundant copies of the TOC data within the same track" (page 17 of the Remarks, lines 5 and 6).

Accordingly, a storage medium such as Applicant's and Yonemitsu's have only one spiral track. For example, both Fig. 1a and column 1, last three lines in Applicant's specification disclose that track 19 is a continuous track. Since there is only one track, Yonemitsu's redundant copies of the TOC data and the TOC data are stored in the same track. In other words, although Yonemitsu's TOC is located within the lead in area and the duplicated TOC is located within the program area, they are both located within the same spiral track.

(b) Furthermore, Applicant states that "there is no disclosure, or suggestion, within Yonemitsu et al. for placing sub-TOC data for storing information for determining the configuration of the same information items stored in the track area" (page 17 of the Remarks, lines 6-9). Accordingly, Yonemitsu's copy of TOC data contains the same information of the TOC and both TOCs are used to determine the configuration of information items store in the same track.

(c) With respect to the judicially created doctrine of obviousness-type double patenting of Claims 10-24, 31, 32, 35, 36, 40 and 42, Applicant disagrees the cited prior art of Yonemitsu teaches the features as listed in above items (a) and (b). Accordingly, Yonemitsu discloses that a TOC and its copy are both stored in a continuous track as explained in above items (a) and (b).

(d) Applicant states that the rejected claim 10 recites the elements of "providing at least two mutually logically sub-TOCs for the same track area in one or more track areas of a unitary storage medium" (page 17 of the Remarks, lines (18-21)). Comparing the rejected claim 10 to the cited prior art of Kawamura et al. in view of Yonemitsu, Applicant states that the combination of Yonemitsu et al. with Kawamura et al. would logically result a master TOC in the entry level of the disc with a copy of the master TOC somewhere in the program area and at most a single sub-TOC in each discrete part of the program area (page 17 of the Remarks, lines 15-18). Accordingly, the combination of Yonemitsu et al. with Kawamura et al. teach at least two mutually logically (duplicated) sub-TOCs (copies of the master TOCs) for the same track in one or more track (program area is part of the track) area.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 10-24, 31, 32, 35, 36, 40 and 42 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-8, 24 and 30-33 of U.S. Patent No. 6,370,090 in view of Yonemitsu et al. of U.S. Patent No. 5,592,450. Although the conflicting claims are not identical, they are not patentably distinct from each other.

4. With respect to the present claims 10-21, the '090 patent shows the following features:

(a) in claim 10, a method for producing a unitary storage medium ('090 patent; claim 1, line 1);

(b) in claim 10, providing at least two mutually logically conforming sub-TOCs for the same track area in one or more track areas of a unitary storage medium ('090 patent; claim 2);

(c) as in claim 10, providing at least one master-TOC having structures for storing information for determining the position of the sub-TOCs ('090 patent; claim 1, lines 10 and 11);

However, The '090 patent does not teach the following:

(a) as in claim 10, the additional sub-TOC having structures for storing information for determining the configuration of the same information items stored in the track area, thereby allowing retrieving the configuration of the same information item in the track area from at least any correct copy of the sub-TOCs.

Yonemitsu teaches the following:

(a) the additional TOC having structures for storing information for determining the configuration of the same information items stored in the track area, thereby allowing retrieving the configuration of the same information item in

the track area from at least any correct copy of the TOCs (Fig. 5).

To determine the configuration of an information item stored in the track area, it would have been obvious to store the same information item as an additional TOC copy and to retrieve the configuration of the information item from the copy, because some computer applications do not easily recognize data recorded in the sectors having negative addresses.

(d) as in claim 11, storing the information items in the track area ('090 patent; claim 5);

(e) as in claim 11, storing in each of the sub-TOC structures the configuration of each of the information items ('090 patent; claim 5);

(f) as in claim 11, storing the content and position of the information items in the track area ('090 patent; claim 5, TOC stores the configuration of each of the information items);

(g) as in claim 11, storing in the master-TOC structures the information for determining the position of the at least two mutually logically conforming sub-TOCs ('090 patent; claim 4);

(h) as in claim 12, the information items include audio information ('090 patent; claim 5);

(i) as in claim 13, the unitary storage medium is an optical disc ('090 patent; claim 7);

(j) as in claim 14, the information is stored by pressing consumer discs from a master disc (an audio-centered information is obviously stored by a master disc pressing process because it can be mass produced in a consumer market);

(k) as in claim 15, the information is stored using an optical write head ('090 patent; claim 8; the recording device is the storing device);

(l) as in claim 16, two sub-TOCs assigned to the track area are positioned at opposite ends of the track area ('090 patent; claim 2);

(m) as in claim 17, the number of sub-TOCs assigned to the track area is exactly 2 ('090 patent; claim 3);

(n) as in claim 18, the master-TOC is positioned at a predetermined offset location with respect to an initial location on the medium ('090 patent; claim 4);

(o) as in claim 19, the mutually logically conforming sub-TOCs are identical ('090 patent; claim 3).

(p) as in claim 20, the information in one of the at least two mutually logically conforming sub-TOCs is a bitwise inversion of the information in another of the at least two mutually logically conforming sub-TOCs ('090 patent; claim 24, lines 1-4);

(q) as in claim 21, the storage medium also includes a file structure, and the information items may be accessed using either the TOC structure or the file structure; the file system for audio information conforms to a standard selected from: UDF, and ISO 9660 ('090 patent; claims 24 and 33);

(r) as in claim 21, the file structure includes a root directory that points to the master-TOC and to subdirectories; the sub-directories include a sub-directory containing stereo audio information items and another sub-directory containing audio information items having three or more channels ('090 patent; claims 28 and 29; three or more channels are obvious as long as stereo channels are stored as audio items); and

(s) as in claim 21, the storage of the audio information is selected from one or more of a lossless compression format; and a lossy compression format ('090 patent; claims 30 and 32).

5. Claims 22-24, 31, 32, 35, 36, 40 and 42 are rejected for the same reasons relied on above.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 10-19, 22, 23, 25, 27, 29, 31, 33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawamura et al. (U.S. Patent 6,198,877) in view of Yonemitsu et al. (U.S. Patent 5,592,450).

Kawamura teaches a method for producing a storage medium very similar to that of the instant invention. For example, Kawamura teaches the following steps:

(a) as in claim 10, providing a sub-TOC in one or more track areas of a unitary storage medium (Fig. 1; a plurality of program TOC where each can be considered as the sub-TOC; column 3, lines 50-57);

(b) as in claim 10, the sub-TOC having a structure for storing information for determining the configuration of the items stored in the track area (Figs. 1 and 15);

(c) as in claim 10, providing at least one master-TOC having structures for storing information for determining the

position of the sub-TOCs (Figs. 1 and 3; Disc TOC is the master-TOC; column 3, lines 50-57);

(d) as in claim 11, storing the information items in the track area (Fig. 26; information items are stored in the disc 60 which contains data tracks);

(e) as in claim 11, storing in each of the sub-TOC structures the configuration of each of the information items including the content and position of the information items in the track area (Fig. 15);

(f) as in claim 11, storing in the master-TOC structures the information for determining the position of the sub-TOCs (Fig. 3; information such as program_TOC pointers);

(g) as in claim 12, the information items 2 include audio information (Fig. 24);

(h) as in claim 13, the unitary storage medium is an optical disc 60 (Fig. 24);

(i) as in claim 14, the information is stored by pressing consumer discs from a master disc (Fig. 24, the disc 60 is a CD-ROM which is manufactured by pressing/cutting machine 54);

(j) as in claim 15, the information is stored using an optical write head 61 (Fig. 26);

(k) as in claim 16, two sub-TOC assigned to the track area are positioned at opposite ends of the track area (Fig. 1;

a track area contains a plurality of program TOCs which are positioned one after another); and

(1) as in claim 18, the master-TOC is positioned at a predetermined offset location with respect to an initial location on the medium (Fig. 1; Disc TOC is located at a predetermined area of the medium).

However, Kawamura does not teach the following:

(a) as in claim 10, providing an additional mutually logically conforming sub-TOC for the same track area of a unitary storage medium;

(b) as in claim 10, the additional sub-TOC having structures for storing information for determining the configuration of the same information items stored in the track area, thereby allowing retrieving the configuration of the same information item in the track area from at least any correct copy of the sub-TOCs;

(c) as in claim 17, the number of sub-TOCs assigned to the track area is exactly 2; and

(d) as in claim 19, the mutually logically sub-TOCs are identical.

Yonemitsu teaches a recording medium having the following:

(a) providing an additional mutually logically conforming TOCs in a unitary storage medium (Fig. 5; TOC has a duplicated copy);

(b) the additional TOC having structures for storing information for determining the configuration of the same information items stored in the track area, thereby allowing retrieving the configuration of the same information item in the track area from at least any correct copy of the TOCs (Fig. 5);

(c) the number of sub-TOCs assigned to the track area is exactly 2 (Fig. 5); and

(d) the mutually logically sub-TOCs are identical.

There is an advantage of duplicating a TOC file in the event the original TOC file cannot be read. For example, Yonemitsu's file structure has a copy of the TOC file as redundant TOC information. Hence, it would have been obvious to one of ordinary skill in the art at the time of invention to make an additional TOC file such as Kawamura's chapter 2 TOC file within the chapter similar to Yonemitsu's, because some computer applications do not easily recognize data recorded in the sectors having negative addresses.

8. Apparatus claims 22 and 23 are drawn to the apparatus corresponding to the method of using the same as claimed in claims 10, 11 and 13. Therefore apparatus claims 22 and 23 correspond to method claims 10, 11 and 13, and are rejected for the same reasons of obviousness as used above.

9. Apparatus claim 25 is drawn to the apparatus corresponding to the method of using the same as claimed in claims 10, 11 and 13. Therefore apparatus claim 25 corresponds to method claims 10, 11 and 13 and is rejected for the same reasons of obviousness as used above. Claim 25 however also recites the following limitations which are taught in Kawamura:

(a) a first control means 70 for positioning a read head for reading information items stored in a track area (Fig. 26); and

(b) a second control means 67 for positioning a read head for reading sub-TOC depending on position information read from at least one master-TOC (Fig. 26; read head positioning/accessing is controlled by the system controller 67).

10. Apparatus claim 27 is drawn to the apparatus corresponding to the method of using the same as claimed in claims 10, 11 and 13. Therefore apparatus claim 27 corresponds to method claims 10, 11 and 13. Claim 27 is rejected for the same reasons of obviousness as used above. Claim 27 however also recites the following limitations which are taught in Kawamura:

(a) a first control means 70 for positioning a write head 61 to write information items stored in a track area (Fig. 26); and

(b) a second control means 67 for positioning the write head 61 to write configuration information (Fig. 26; write head positioning/accessing is controlled by the system controller 67).

11. Apparatus claims 29 and 33 are drawn to the apparatus corresponding to the method of using the same as claimed in claims 10, 11 and 13. Therefore apparatus claims 29 and 33 correspond to method claims 10, 11 and 13, and are rejected for the same reasons of obviousness as used above. Claims 29 and 33 however also recite the following limitations which are taught by Kawamura:

- (a) a read/write head 61 (Fig. 26);
- (b) a disc driver 69 (Fig. 26);
- (c) a read/write head position controlling means 70 (Fig. 26); and
- (d) a disc clamping device for holding the disc (disc holder is an inherent device for securing the moving disc 60 as shown in Fig. 26).

12. Apparatus claim 31 is drawn to the apparatus corresponding to the method of using the same as claimed in claims 10, 11, 13 and 14. Therefore apparatus claim 31 corresponds to method claims 10, 11, 13 and 14, and is rejected for the same reasons of obviousness as used above. Claim 31 however also recites the following limitation which is taught by Kawamura:

- (a) a master disc and pressing means 54 (Fig. 24).

13. Apparatus claim 35 is drawn to the apparatus corresponding to the method of using the same as claimed in claims 10, 11, and 13. Therefore apparatus claim 35 corresponds to method claims 10, 11 and 13, and is rejected for the same reasons of obviousness as used above. Claim 35 however also recites the following limitation which is taught by Kawamura:

- (a) a TOC mechanism 50 (Fig. 24).

Allowable Subject Matter

14. Claims 26, 28, 30, 34, 37-39 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

15. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

As in claims 26, 28, 30, 34, 37-39 and 41, the prior art of record fails to teach or fairly suggest that the information in the mutually logically conforming sub-TOCs is a bitwise inversion of a select identical information.

The features indicated above, in combination with the other elements of the claims, are not anticipated by, nor made obvious over, the prior art of record.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kanota et al. (6,813,681) is pertinent because Kanota teaches an information recording/reproducing having a master TOC and a back up TOC.

17. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action

18. Any response to this action should be mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Or faxed to:

(703) 872-9306 (for formal communications intended for entry. Or:

(571) 273-7585, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Any inquiry of a general nature or relating to the status of this application should be directed USPTO Contact Center (703) 308-4357; Electronic Business Center (703) 305-3028.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

Kim-Kwok CHU

lcc *4/28/05*

Examiner AU2653
April 28, 2005

(571) 272-7585

William Korzuch
WILLIAM KORZUCH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600